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<130>  25436/2412

<140>  US 10/815,337
<141>  2004-03-31

<150>  60/460,432
<151>  2003-04-04

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<213>  Renilla reniformis

<400>  2

Met Val Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met
1               5                   10                  15
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Ser Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr
            20                  25                  30

Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val
            35                  40                  45

Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile
    50                  55                  60

Leu Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro
65                  70                  75                  80

Glu Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val
                85                  90                  95

Tyr Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg
            100                 105                 110

Ser Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr Arg Val Glu Tyr
        115                 120                 125

Lys Gly Arg Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile
    130                 135                 140

Thr Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val
145                 150                 155                 160

Leu Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe
                165                 170                 175

Tyr Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys
            180                 185                 190

Asp Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr
            195                 200                 205

Val Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln
    210                 215                 220

Leu Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225                 230                 235

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cagcaccgcc tggagaagac ctacgtggag gacggcggct cgtggagca gcacgagacc       660

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Ser Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr
            20                  25                  30

Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Leu Gly Asn Gln Leu Val
        35                  40                  45

Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile
    50                  55                  60

Leu Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro
65                  70                  75                  80

Glu Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val
                85                  90                  95

Tyr Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg
            100                 105                 110

Ser Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr Arg Val Glu Tyr
            115                 120                 125

Lys Gly Arg Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile
    130                 135                 140

Thr Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val
145                 150                 155                 160

Leu Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe
                165                 170                 175

Tyr Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys
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3
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Asp Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr
        195                 200                 205

Val Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln
    210                 215                 220

Leu Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225                 230                 235

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<213>  Renilla reniformis

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gccttcgaca tcctgagccc cgccttccag tacggcaacc gcaccttcac caagtacccc     240

gaggacatca gcgacttctt catccagagc ttccccgccg gcttcgtgta cgagcgcacc     300

ctgcgctacg aggacggcgg cctggtggag atccgcagcg acatcaacct gatcgagggg     360

atgttcgtgt accgcgtgga gtacaagggc cgcaacttcc ccaacgacgg ccccgtgatg     420

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atgcgcaccc tgatgaagag caagggcgtg gtgaaggact ccccgagta ccacttcatc     600

cagcaccgcc tggagaagac ctacgtggag gacggcggct cgtagagca gcacgagacc     660

gccatcgccc agctgaccag cctgggcaag cccctgggca gcctgcacga gtgggtgtaa     720

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<212>  PRT
<213>  Renilla reniformis

<400>  6

Met Val Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met
1                   5                   10                  15

Ser Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr
            20                  25                  30

Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val
        35                  40                  45

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Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile
    50                  55                  60

Leu Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro
65                      70                  75                  80

Glu Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val
                85                  90                  95

Tyr Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg
            100                 105                 110

Ser Asp Ile Asn Leu Ile Glu Gly Met Phe Val Tyr Arg Val Glu Tyr
            115                 120                 125

Lys Gly Arg Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile
    130                 135                 140

Thr Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val
145                 150                 155                 160

Leu Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe
            165                 170                 175

Tyr Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys
            180                 185                 190

Asp Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr
            195                 200                 205

Val Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln
    210                 215                 220

Leu Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225                 230                 235

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gccttcgaca tcctgagccc cgccttccag tacggcaacc gcaccttcac caagtacccc     240

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atgcgctacg aggacggcgg cctggtggag atccgcagcg acatcaacct gatcgaggag     360

atgttcgtgt accgcgtgga gtacaagggc cgcaacttcc ccaacgacgg ccccgtgatg     420

aagaagacca tcaccggcct gcagcccagc ttcgaggtgg tgtacatgaa cgacggcgtg     480
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5

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gccatcgccc agctgaccag cctgggcaag cccctgggca gcctgcacga gtgggtgtaa   720

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<213>   Renilla reniformis

<400>   8

Met Val Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met
1   5   10   15

Ser Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr
            20   25   30

Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val
            35   40   45

Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile
    50   55   60

Leu Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro
65   70   75   80

Glu Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val
            85   90   95

Tyr Glu Arg Thr Met Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg
            100   105   110

Ser Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr Arg Val Glu Tyr
            115   120   125

Lys Gly Arg Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile
    130   135   140

Thr Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val
145   150   155   160

Leu Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe
            165   170   175

Tyr Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys
            180   185   190

Asp Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr
            195   200   205

Val Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln
    210   215   220

6

Leu Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225   230   235

<210> 9
<211> 720
<212> DNA
<213> Renilla reniformis

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gccatcgccc agctgaccag cctgggcaag cccctgggca gcctgcacga gtgggtgtaa   720

<210> 10
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<212> PRT
<213> Renilla reniformis

<400> 10

Met Val Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met
1   5   10   15

Ser Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr
             20   25   30

Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Ser Gly Asn Gln Leu Val
        35   40   45

Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile
    50   55   60

Leu Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro
65   70   75   80

Glu Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val

7

Tyr Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg
            100   105   110

Ser Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr Arg Val Glu Tyr
            115   120   125

Lys Gly Arg Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile
        130   135   140

Thr Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val
145   150   155   160

Leu Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe
                165   170   175

Tyr Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys
            180   185   190

Asp Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr
        195   200   205

Val Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln
    210   215   220

Leu Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225   230   235

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<210> 12
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<212> PRT
<213> Renilla reniformis

<400> 12

Met Val Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met
1   5   10   15

Ser Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr
            20   25   30

Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val
            35   40   45

Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile
    50   55   60

Leu Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro
65   70   75   80

Glu Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val
            85   90   95

Tyr Glu Arg Thr Leu Cys Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg
            100   105   110

Ser Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr His Val Glu Tyr
            115   120   125

Lys Gly Arg Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile
    130   135   140

Thr Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val
145   150   155   160

Leu Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe
            165   170   175

Tyr Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys
            180   185   190

Asp Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr
            195   200   205

Val Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln
    210   215   220

Leu Thr Ser Leu Gly Tyr Pro Leu Gly Ser Leu His Glu Trp Val
225   230   235

<210> 13
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<213> Renilla reniformis

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<212> PRT
<213> Renilla reniformis

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Met Val Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met
1   5   10   15

Ser Phe Lys Val Ile Leu Glu Gly Val Val Asn Asn His Val Phe Thr
            20   25   30

Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val
        35   40   45

Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile
    50   55   60

Leu Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro
65   70   75   80

Glu Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val
                85   90   95

Tyr Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg
                100   105   110

Ser Asp Ile Asn Leu Ile Glu Gly Met Phe Val Tyr Arg Val Glu Tyr
        115   120   125

10

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Lys Gly Arg Asn Phe Pro Asn Asp Gly Pro Val Met Lys Asn Thr Ile
    130                 135             140

Thr Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val
145                 150                 155                 160

Leu Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe
                165                 170                 175

Tyr Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys
            180                 185                 190

Asp Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr
            195                 200                 205

Val Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln
    210                 215                 220

Leu Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225                 230                 235

<210>   15
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gccttcgaca tcctgagccc cgccttccag tacggcaacc gcaccttcac caagtacccc     240

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<213>   Renilla reniformis
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<400> 16

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Met Val Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met
1               5               10              15

Ser Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr
            20              25              30

Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val
        35              40              45

Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile
    50              55              60

Leu Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro
65              70              75              80

Glu Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val
            85              90              95

Tyr Glu Arg Thr Leu Arg Phe Glu Asp Gly Gly Leu Val Glu Ile Arg
        100             105             110

Ser Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr Arg Val Glu Tyr
        115             120             125

Lys Gly Arg Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile
    130             135             140

Thr Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val
145             150             155             160

Leu Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe
            165             170             175

Tyr Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys
        180             185             190

Asp Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr
        195             200             205

Val Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln
    210             215             220

Leu Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225             230             235
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<210> 17
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<212> DNA
<213> Renilla reniformis

<400> 17

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atcctgttcg gcaaccagct ggtgcagatc cgcgtgacca agggcgcccc cctgcccttc      180

gccttcgaca tcctgagccc cgccttccag tacggcaacc gcaccttcac caagtacccc      240

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ctgcgcttcg aggacggcgg cctggtggag atccgcagcg acatcaacct gatcgaggag      360

atgttcgtgt accgcgtgga gtacaagggc cgcaacttcc ccaacgacgg ccccgtgatg      420

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ctggtgggcc aggtgatcct ggtgtaccgc ctgaacagcg gcaagttcta cagctgccac      540

atgcgcaccc tgatgaagag caagggcgtg gtgaaggact cccccgagta ccacttcatc      600

cagcaccgcc tggagaagac ctacgtggag gacggcggct cgtggagca gcacgagacc      660

gccatcgccc agctgaccag cctgggcaag cccctgggca gcctgcacga gtgggtgtaa      720
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<210> 18
<211> 239
<212> PRT
<213> Renilla reniformis

<400> 18

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Met Val Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met
1               5                  10                  15

Ser Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Pro
            20                  25                  30

Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val
        35                  40                  45

Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile
    50                  55                  60

Leu Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro
65                  70                  75                  80

Glu Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val
                85                  90                  95

Tyr Glu Arg Thr Leu Arg Phe Glu Asp Gly Gly Leu Val Glu Ile Arg
            100                 105                 110

Ser Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr Arg Val Glu Tyr
            115                 120                 125

Lys Gly Arg Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile
    130                 135                 140

Thr Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val
145                 150                 155                 160
```

13

Leu Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe
                    165   170   175

Tyr Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys
                    180   185   190

Asp Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr
                195   200   205

Val Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln
        210   215   220

Leu Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225   230   235

<210> 19
<211> 720
<212> DNA
<213> Renilla reniformis

<400> 19
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aacctggagg gcgtggtgaa caaccacgtg ttcaccatgg agggctgcgg caagggcaac   120

atcctgttcg gcaaccagct ggtgcagatc cgcgtgacca agggcgcccc cctgcccttc   180

gccttcgaca tcctgagccc cgccttccag tacggcaacc gcaccttcac caagtacccc   240

gaggacatca gcgacttctt catccagagc ttccccgccg gcttcgtgta cgagcgcacc   300

ctgcgctacg aggacggcgg cctggtggag atccgcagcg acatcaacct gatcgagggg   360

atgttcgtgt accgcgtgga gtacaagggc cgcaacttcc ccaacgacgg ccccgtgatg   420

aagaagacca tcaccggcct gcagcccagc ttcgaggtgg tgtacatgaa cgacggcgtg   480

ctggtgggcc aggtgatcct ggtgtaccgc ctgaacagcg gcaagttcta cagctgccac   540

atgcgcaccc tgatgaagag caagggcgtg gtgaaggact tccccgagta ccacttcatc   600

cagcaccgcc tggagaagac ctacgtggag gacggcggct cgtggagcag cacgagacc   660

gccatcgccc agctgaccag cctgggcaag cccctgggca gcctgcacga gtgggtgtaa   720

<210> 20
<211> 239
<212> PRT
<213> Renilla reniformis

<400> 20

Met Val Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met
1   5   10   15

Ser Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr
                20   25   30

14

Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val
     35   40   45

Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile
     50   55   60

Leu Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro
65   70   75   80

Glu Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val
            85   90   95

Tyr Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg
          100   105   110

Ser Asp Ile Asn Leu Ile Glu Gly Met Phe Val Tyr Arg Val Glu Tyr
          115   120   125

Lys Gly Arg Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile
     130   135   140

Thr Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val
145   150   155   160

Leu Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe
          165   170   175

Tyr Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys
          180   185   190

Asp Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr
          195   200   205

Val Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln
     210   215   220

Leu Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225   230   235

<210> 21
<211> 720
<212> DNA
<213> Renilla reniformis

<400> 21
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atcctgtccg gcaaccagct ggtgcagatc cgcgtgacca agggcgcccc cctgcccttc   180

gccttcgaca tcctgagccc cgccttccag tacggcaacc gcaccttcac caagtacccc   240

gaggacatca gcgacttctt catccagagc ttccccgccg gcttcgtgta cgagcgcacc   300

ctgcgcttcg aggacggcgg cctggtggag atccgcagcg acatcaacct gatcgaggag   360

15

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atgttcgagt accgcgtgga gtacaagggc cgcaacttcc ccaacgacgg ccccgtgatg      420

aagaagacca tcaccggcct gcagcccagc ttcgaggtgg tgtacatgaa cgacggcgtg      480

ctggtgggcc aggtgatcct ggtgtaccgc ctgaacagcg gcaagttcta cagctgccac      540

atgcgcaccc tgatgaagag caagggcgtg gtgaaggact cccccgagta ccacttcatc      600

cagcaccgcc tggagaagac ctacgtggag gacggcggct cgtagagca gcacgagacc      660

gccatcgccc agctgaccag cctgggcaag cccctgggca gcctgcacga gtgggtgtaa      720
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<210> 22
<211> 239
<212> PRT
<213> Renilla reniformis

<400> 22

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Met Val Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met
1               5                   10                  15

Ser Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr
            20                  25                  30

Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Ser Gly Asn Gln Leu Val
            35                  40                  45

Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile
        50                  55                  60

Leu Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro
65                  70                  75                  80

Glu Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val
                85                  90                  95

Tyr Glu Arg Thr Leu Arg Phe Glu Asp Gly Gly Leu Val Glu Ile Arg
                100                 105                 110

Ser Asp Ile Asn Leu Ile Glu Glu Met Phe Glu Tyr Arg Val Glu Tyr
            115                 120                 125

Lys Gly Arg Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile
        130                 135                 140

Thr Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val
145                 150                 155                 160

Leu Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe
                165                 170                 175

Tyr Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys
                180                 185                 190

Asp Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr
```

16

```
        195                200                205
```

Val Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln
    210   215   220

Leu Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225   230   235

<210> 23
<211> 720
<212> DNA
<213> Renilla reniformis

<400> 23
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atggtgagca agcagatcct gaagaacacc ggcctgcagg agatcatgag cttcaaggtg      60

aacctggagg gcgtggtgaa caaccacgtg ttcaccatgg agggctgcgg caagggcaac     120

atcctgtccg gcaaccagct ggtgcagatc cgcgtgacca agggcgcccc cctgcccttc     180

gccttcgaca tcctgagccc cgccttccag tacggcaacc gcaccttcac caagtacccc     240

gaggacatca gcgacttctt catccagagc ttccccgccg gcttcgtgta cgagcgcacc     300

ctgcgcttcg aggacggcgg cctggtggag atccgcagcg acatcaacct gatcgaggag     360

atgttcgggt accgcgtgga gtacaagggc cgcaacttcc ccaacgacgg ccccgtgatg     420

aagaagacca tcaccggcct gcagcccagc ttcgaggtgg tgtacatgaa cgacggcgtg     480

ctggtgggcc aggtgatcct ggtgtaccgc ctgaacagcg gcaagttcta cagctgccac     540

atgcgcaccc tgatgaagag caagggcgtg gtgaaggact tccccgagta ccacttcatc     600

cagcaccgcc tggagaagac ctacgtggag gacggcggct cgtggagca gcacgagacc     660

gccatcgccc agctgaccag cctgggcaag cccctgggca gcctgcacga gtgggtgtaa     720
```

<210> 24
<211> 239
<212> PRT
<213> Renilla reniformis

<400> 24

```
Met Val Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met
1                5                10                15
```

Ser Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr
            20   25   30

Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Ser Gly Asn Gln Leu Val
        35   40   45

Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile
    50   55   60

17

Leu Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro
65   70   75   80

Glu Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val
                85   90   95

Tyr Glu Arg Thr Leu Arg Phe Glu Asp Gly Gly Leu Val Glu Ile Arg
         100   105   110

Ser Asp Ile Asn Leu Ile Glu Glu Met Phe Glu Tyr Arg Val Glu Tyr
         115   120   125

Lys Gly Arg Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile
         130   135   140

Thr Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val
145   150   155   160

Leu Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe
              165   170   175

Tyr Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys
         180   185   190

Asp Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr
         195   200   205

Val Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln
    210   215   220

Leu Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225   230   235

<210>   25
<211>   720
<212>   DNA
<213>   Renilla reniformis

<400>   25
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atcctggagg gcgtggtgaa caaccacgtg ttcaccatgg agggctgcgg caagggcaac   120

atcctgttcg gcaaccagct ggtgcagatc cgcgtgacca agggcgcccc cctgcccttc   180

gccttcgaca tcctgagccc cgccttccag tacggcaacc gcaccttcac caagtacccc   240

gaggacatca gcgacttctt catccagagc ttccccgccg gcttcgtgta cgagcgcacc   300

ctgcgcttcg aggacggcgg cctggtggag atccgcagcg acatcaacct gatcgagggg   360

atgttcgtgt accgcgtgga gtacaagggc cgcaacttcc ccaacgacgg ccccgtgatg   420

aagaatacca tcaccggcct gcagcccagc ttcgaggtgg tgtacatgaa cgacggcgtg   480

ctggtgggcc aggtgatcct ggtgtaccgc ctgaacagcg gcaagttcta cagctgccac   540

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atgcgcaccc tgatgaagag caagggcgtg gtgaaggact tccccgagta ccacttcatc    600

cagcaccgcc tggagaaggc ctacgtggag gacggcggca tcgtggagca gcacgagacc    660

gccatcgccc agctgaccag cctgggcaag cccctgggca gcctgcacga gtgggtgtaa    720
```

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<210>    26
<211>    239
<212>    PRT
<213>    Renilla reniformis

<400>    26
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```
Met Val Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met
1               5                   10                  15

Ser Phe Lys Val Ile Leu Glu Gly Val Val Asn Asn His Val Phe Thr
            20                  25                  30

Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val
        35                  40                  45

Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile
    50                  55                  60

Leu Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro
65                  70                  75                  80

Glu Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val
            85                  90                  95

Tyr Glu Arg Thr Leu Arg Phe Glu Asp Gly Gly Leu Val Glu Ile Arg
            100                 105                 110

Ser Asp Ile Asn Leu Ile Glu Gly Met Phe Val Tyr Arg Val Glu Tyr
            115                 120                 125

Lys Gly Arg Asn Phe Pro Asn Asp Gly Pro Val Met Lys Asn Thr Ile
    130                 135                 140

Thr Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val
145                 150                 155                 160

Leu Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe
            165                 170                 175

Tyr Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys
            180                 185                 190

Asp Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Ala Tyr
            195                 200                 205

Val Glu Asp Gly Gly Ile Val Glu Gln His Glu Thr Ala Ile Ala Gln
    210                 215                 220

Leu Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225                 230                 235
```

<210> 27
<211> 720
<212> DNA
<213> Renilla reniformis

<400> 27
atggtgagca agcagatcct gaagaacacc ggcctgcagg agatcatgag cttcaaggtg   60

aacctggagg gcgtggtgaa caaccacgtg ttcaccatgg agggctgcgg caagggcaac   120

atcctgttcg gcaaccagct ggtgcagatc cgcgtgacca agggcgcccc cctgcccttc   180

gccttcgaca tcctgagccc cgccttccag tacggcaacc gcaccttcac caagtacccc   240

gaggacatca gcgacttctt catccagagc ttccccgccg gcttcgtgta cgagcgcacc   300

ctgcgctacg aggacggcgg cctggcggag atccgcagcg acatcaacct gatcgagggg   360

atgttcgtgt accgcgtgga gtacaagggc cgcaacttcc caacgacgg ccccgtgatg   420

aagaatacca tcaccggcct gcagcccagc ttcgaggtgg tgtacatgaa cgacggcgtg   480

ctggtgggcc aggtgatcct ggtgtaccgc ctgaacagcg gcaagttcta cagctgccac   540

atgcgcaccc tgatgaagag caagggcgtg gtgaaggact ccccgagta ccacttcatc   600

cagcaccgcc tggagaagac ctacgtggag gacggcggct cgtggagca gcacgagacc   660

gccatcgccc agctgaccag cctgggcaag ccctgggca gcctgcacga gtgggtgtaa   720

<210> 28
<211> 239
<212> PRT
<213> Renilla reniformis

<400> 28

Met Val Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met
1   5   10   15

Ser Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr
                20   25   30

Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val
            35   40   45

Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile
    50   55   60

Leu Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro
65   70   75   80

Glu Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val
                85   90   95

Tyr Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Ala Glu Ile Arg

20

```
          100                    105                    110

Ser Asp Ile Asn Leu Ile Glu Gly Met Phe Val Tyr Arg Val Glu Tyr
        115                 120                 125

Lys Gly Arg Asn Phe Pro Asn Asp Gly Pro Val Met Lys Asn Thr Ile
    130                 135                 140

Thr Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val
145                 150                 155                 160

Leu Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe
                165                 170                 175

Tyr Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys
            180                 185                 190

Asp Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr
        195                 200                 205

Val Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln
    210                 215             ·       220

Leu Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225                 230                 235

<210>   29
<211>   720
<212>   DNA
<213>   Renilla reniformis

<400>   29
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atcctggagg gcgtggtgaa caaccacgtg ttcaccatgg agggctgcgg caagggcaac     120

atcctgttcg gcaaccagct ggtgcagatc cgcgtgacca agggcgcccc cctgcccttc     180

gccttcgaca tcctgagccc cgccttccag tacggcaacc gcaccttcac caagtacccc     240

gaggacatca gcgacttctt catccagagc ttccccgccg gcttcgtgta cgagcgcacc     300

ctgcgctacg aggacggcgg cctggtggag atccgcagcg acatcaacct gatcgagggg     360

atgttcgtgt accgcgtgga gtacaagggc cgcaacttcc ccaacgacgg ccccgtgatg     420

aagaatacca tcaccggcct gcagcccagc ttcgaggtgg tgtacatgaa cgacggcgtg     480

ctggtgggcc aggtgatcct ggtgtaccgc ctgaactgcg gcaagttcta cagctgccac     540

atgcgcaccc tgatgaagag caagggcgtg gtgaaggact cccccgagta ccacttcatc     600

cagcaccgcc tggagaagac ctacgtggag gacggcggct cgtggagca gcacgagacc     660

gccatcgccc agctgaccag cctgggcaag cccctgggca gcctgcacga gtgggtgtaa     720

<210>   30
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<211> 239
<212> PRT
<213> Renilla reniformis

<400> 30

Met Val Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Val
1   5   10   15

Ser Phe Lys Val Ile Leu Glu Gly Val Val Asn Asn His Val Phe Thr
            20   25   30

Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val
            35   40   45

Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile
    50   55   60

Leu Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro
65   70   75   80

Glu Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val
            85   90   95

Tyr Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg
            100   105   110

Ser Asp Ile Asn Leu Ile Glu Gly Met Phe Val Tyr Arg Val Glu Tyr
            115   120   125

Lys Gly Arg Asn Phe Pro Asn Asp Gly Pro Val Met Lys Asn Thr Ile
    130   135   140

Thr Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val
145   150   155   160

Leu Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Cys Gly Lys Phe
                165   170   175

Tyr Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys
            180   185   190

Asp Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr
            195   200   205

Val Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln
    210   215   220

Leu Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225   230   235

<210> 31
<211> 714
<212> DNA
<213> Renilla reniformis

<400> 31

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ctggaaggtg tagtaaacaa tcatgtgttc acaatggaag gttgtggaaa aggaaatatt   120

ttattcggaa accaactggt tcagattcgt gtcacaaaag gggctccgct tccatttgca   180

tttgatattc tctcaccagc tttccaatac ggcaaccgta cattcacgaa atacccggag   240

gatatatcag actttttat acaatcattt ccagcgggat ttgtatacga aagaacgttg   300

cgttacgaag atggtggact ggttgaaatc cgttcagata taaatttaat cgaggagatg   360

tttgtctaca gagtggaata taaaggtagt aacttcccga atgatggtcc agtgatgaag   420

aagacaatca caggattaca accttcgttc gaagttgtgt atatgaacga tggcgtcttg   480

gttggccaag tcattcttgt ttatagatta aactctggca aatttattc gtgtcacatg   540

agaacactga tgaaatcaaa gggtgtagtg aaggattttc ccgaatacca tttcattcaa   600

catcgtttag agaagacgta tgtggaagac ggaggttttg ttgaggaaca cgagacggcc   660

attgctcaac tgacatcgct ggggaaacca cttggatcct tacacgaatg ggtt          714
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<210>   32
<211>   238
<212>   PRT
<213>   Renilla reniformis

<400>   32

Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met Ser
1               5                  10                  15

Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr Met
            20                  25                  30

Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val Gln
        35                  40                  45

Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile Leu
    50                  55                  60

Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu
65                  70                  75                  80

Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr
                85                  90                  95

Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg Ser
                100                 105                 110

Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr Arg Val Glu Tyr Lys
            115                 120                 125

Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile Thr
    130                 135                 140
```

23

```
Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu
145                 150                 155                 160

Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe Tyr
                165                 170                 175

Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp
            180                 185                 190

Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr Val
        195                 200                 205

Glu Asp Gly Gly Phe Val Glu Glu His Glu Thr Ala Ile Ala Gln Leu
    210                 215                 220

Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225                 230                 235


<210>  33
<211>  714
<212>  DNA
<213>  Renilla reniformis

<400>  33
atgagtaaac aaatattgaa gaacactgga ttgcaggaga tcatgtcgtt taaagtgaat      60

ctggaaggtg tagtaaacaa tcatgtgttc acaatggaag gttgtggaaa aggaaatatt     120

ttattaggaa accaactggt tcagattcgt gtcacaaaag gggctccgct tccatttgca     180

tttgatattc tctcaccagc tttccaatac ggcaaccgta cattcacgaa atacccggag     240

gatatatcag acttttttat acaatcattt ccagcgggat ttgtatacga agaacgttg      300

cgttacgaag atggtggact ggttgaaatc cgttcagata taaatttaat cgaggagatg     360

tttgtctaca gagtggaata taaaggtagt aacttcccga atgatggtcc agtgatgaag     420

aagacaatca caggattaca accttcgttc gaagttgtgt atatgaacga tggcgtcttg     480

gttggccaag tcattcttgt ttatagatta aactctggca aatttattc gtgtcacatg      540

agaacactga tgaaatcaaa gggtgtagtg aaggattttc ccgaatacca tttcattcaa     600

catcgtttag agaagacgta tgtggaagac ggaggttttg ttgaggaaca cgagacggcc     660

attgctcaac tgacatcgct ggggaaacca cttggatcct tacacgaatg ggtt           714

<210>  34
<211>  238
<212>  PRT
<213>  Renilla reniformis

<400>  34

Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met Ser
```

24

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1                   5                        10                            15

Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr Met
            20                      25                30

Glu Gly Cys Gly Lys Gly Asn Ile Leu Leu Gly Asn Gln Leu Val Gln
            35                      40                45

Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile Leu
        50                  55                60

Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu
65                      70                  75                    80

Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr
                85                  90                  95

Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg Ser
            100                     105               110

Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr Arg Val Glu Tyr Lys
            115                     120               125

Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile Thr
        130                 135                 140

Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu
145                     150                 155                   160

Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe Tyr
                165                 170                 175

Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp
            180                     185               190

Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr Val
            195                 200                 205

Glu Asp Gly Gly Phe Val Glu Glu His Glu Thr Ala Ile Ala Gln Leu
    210                 215                 220

Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225                 230                 235

<210>   35
<211>   714
<212>   DNA
<213>   Renilla reniformis

<400>   35
atgagtaaac aaatattgaa gaacactgga ttgcaggaga tcatgtcgtt taaagtgaat      60

ctggaaggtg tagtaaacaa tcatgtgttc acaatggaag gttgtggaaa aggaaatatt     120

ttattcggaa accaactggt tcagattcgt gtcacaaaag gggctccgct tccatttgca     180

tttgatattc tctcaccagc tttccaatac ggcaaccgta cattcacgaa atacccggag     240
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gatatatcag actttttat acaatcattt ccagcgggat ttgtatacga aagaacgttg      300

cgttacgaag atggtggact ggttgaaatc cgttcagata taaatttaat cgaggggatg      360

tttgtctaca gagtggaata taaaggtagt aacttcccga atgatggtcc agtgatgaag      420

aagacaatca caggattaca accttcgttc gaagttgtgt atatgaacga tggcgtcttg      480

gttggccaag tcattcttgt ttatagatta aactctggca aatttttattc gtgtcacatg      540

agaacactga tgaaatcaaa gggtgtagtg aaggattttc ccgaatacca tttcattcaa      600

catcgtttag agaagacgta tgtggaagac ggaggttttg tagaggaaca cgagacggcc      660

attgctcaac tgacatcgct ggggaaacca cttggatcct tacacgaatg ggtt            714
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<210> 36
<211> 238
<212> PRT
<213> Renilla reniformis

<400> 36

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Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met Ser
1               5                   10                  15

Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr Met
            20                  25                  30

Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val Gln
        35                  40                  45

Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile Leu
    50                  55                  60

Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu
65                  70                  75                  80

Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr
                85                  90                  95

Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg Ser
            100                 105                 110

Asp Ile Asn Leu Ile Glu Gly Met Phe Val Tyr Arg Val Glu Tyr Lys
            115                 120                 125

Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile Thr
    130                 135                 140

Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu
145                 150                 155                 160

Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe Tyr
                165                 170                 175
```

26

Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp
            180   185   190

Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr Val
            195   200   205

Glu Asp Gly Gly Phe Val Glu Glu His Glu Thr Ala Ile Ala Gln Leu
    210   215   220

Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225   230   235

<210>   37
<211>   714
<212>   DNA
<213>   Renilla reniformis

<400>   37
atgagtaaac aaatattgaa gaacactgga ttgcaggaga tcatgtcgtt taaagtgaat   60

ctggaaggtg tagtaaacaa tcatgtgttc acaatggaag gttgtggaaa aggaaatatt   120

ttattcggaa accaactggt tcagattcgt gtcacaaaag gggctccgct tccatttgca   180

tttgatattc tctcaccagc tttccaatac ggcaaccgta cattcacgaa atacccggag   240

gatatatcag acttttttat acaatcattt ccagcgggat ttgtatacga agaacgatg   300

cgttacgaag atggtggact ggttgaaatc cgttcagata taaatttaat cgaggagatg   360

tttgtctaca gagtggaata taaaggtagt aacttcccga atgatggtcc agtgatgaag   420

aagacaatca caggattaca accttcgttc gaagttgtgt atatgaacga tggcgtcttg   480

gttggccaag tcattcttgt ttatagatta aactctggca aattttattc gtgtcacatg   540

agaacactga tgaaatcaaa gggtgtagtg aaggattttc ccgaatacca tttcattcaa   600

catcgtttag agaagacgta tgtggaagac ggaggttttg ttgaggaaca cgagacggcc   660

attgctcaac tgacatcgct ggggaaacca cttggatcct tacacgaatg ggtt   714

<210>   38
<211>   238
<212>   PRT
<213>   Renilla reniformis

<400>   38

Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met Ser
1   5   10   15

Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr Met
            20   25   30

Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val Gln
        35   40   45

27

```
Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile Leu
    50              55              60
Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu
65              70              75              80
Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr
                85              90              95
Glu Arg Thr Met Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg Ser
            100             105             110
Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr Arg Val Glu Tyr Lys
        115             120             125
Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile Thr
    130             135             140
Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu
145             150             155             160
Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe Tyr
                165             170             175
Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp
            180             185             190
Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr Val
        195             200             205
Glu Asp Gly Gly Phe Val Glu Glu His Glu Thr Ala Ile Ala Gln Leu
    210             215             220
Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225             230             235

<210> 39
<211> 714
<212> DNA
<213> Renilla reniformis

<400> 39
atgagtaaac aaatattgaa gaacactgga ttgcaggaga tcatgtcgtt taaagtgaat      60

ctggaaggtg tagtaaacaa tcatgtgttc acaatggaag gttgtggaaa aggaaatatt     120

ttatccggaa accaactggt tcagattcgt gtcacaaaag gggctccgct tccatttgca     180

tttgatattc tctcaccagc tttccaatac ggcaaccgta cattcacgaa atacccggag     240

gatatatcag acttttttat acaatcattt ccagcgggat ttgtatacga agaacgttg     300

cgttacgaag atggtggact ggttgaaatc cgttcagata taaatttaat cgaggagatg     360

tttgtctaca gagtggaata taaaggtagt aacttcccga atgatggtcc agtgatgaag     420
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28

aagacaatca caggattaca accttcgttc gaagttgtgt atatgaacga tggcgtcttg   480

gttggccaag tcattcttgt ttatagatta aactctggca aattttattc gtgtcacatg   540

agaacactga tgaaatcaaa gggtgtagtg aaggattttc ccgaatacca tttcattcaa   600

catcgtttag agaagacgta tgtggaagac ggaggttttg ttgaggaaca cgagacggcc   660

attgctcaac tgacatcgct ggggaaacca cttggatcct tacacgaatg ggtt   714

<210>   40
<211>   238
<212>   PRT
<213>   Renilla reniformis

<400>   40

Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met Ser
1   5   10   15

Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr Met
            20   25   30

Glu Gly Cys Gly Lys Gly Asn Ile Leu Ser Gly Asn Gln Leu Val Gln
            35   40   45

Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile Leu
        50   55   60

Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu
65   70   75   80

Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr
                85   90   95

Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg Ser
            100   105   110

Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr Arg Val Glu Tyr Lys
            115   120   125

Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile Thr
        130   135   140

Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu
145   150   155   160

Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe Tyr
                165   170   175

Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp
            180   185   190

Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr Val
            195   200   205

Glu Asp Gly Gly Phe Val Glu Glu His Glu Thr Ala Ile Ala Gln Leu

29

Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225   230   235

<210>   41
<211>   714
<212>   DNA
<213>   Renilla reniformis

<400>   41
atgagtaaac aaatattgaa gaacactgga ttgcaggaga tcatgtcgtt taaagtgaat   60

ctggaaggtg tagtaaacaa tcatgtgttc acaatggaag gttgtggaaa aggaaatatt   120

ttattcggaa accaactggt tcagattcgt gtcacaaaag gggctccgct tccatttgca   180

tttgatattc tctcaccagc tttccaatac ggcaaccgta cattcacgaa atacccggag   240

gatatatcag acttttttat acaatcattt ccagcgggat ttgtatacga agaacgttg   300

tgttacgaag atggtggact ggttgaaatc cgttcagata taaatttaat cgaggagatg   360

tttgtctacc atgtggaata taaaggtagt aacttcccga atgatggtcc agtgatgaag   420

aagacaatca caggattaca accttcgttc gaagttgtgt atatgaacga tggcgtcttg   480

gttggccaag tcattcttgt ttatagatta aactctggca aattttattc gtgtcacatg   540

agaacactga tgaaatcaaa gggtgtagtg aaggattttc ccgaatacca tttcattcaa   600

catcgtttag agaagacgta tgtggaagac ggaggttttg ttgaggaaca cgagacggcc   660

attgctcaac tgacatcgct ggggaatcca cttggatcct tacacgaatg ggtt   714

<210>   42
<211>   238
<212>   PRT
<213>   Renilla reniformis

<400>   42

Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met Ser
1   5   10   15

Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr Met
            20   25   30

Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val Gln
        35   40   45

Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile Leu
    50   55   60

Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu
65   70   75   80

```
Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr
                85                  90              95

Glu Arg Thr Leu Cys Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg Ser
            100             105             110

Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr His Val Glu Tyr Lys
        115             120             125

Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile Thr
    130             135             140

Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu
145             150             155             160

Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe Tyr
            165             170             175

Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp
            180             185             190

Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr Val
        195             200             205

Glu Asp Gly Gly Phe Val Glu Glu His Glu Thr Ala Ile Ala Gln Leu
    210             215             220

Thr Ser Leu Gly Tyr Pro Leu Gly Ser Leu His Glu Trp Val
225             230             235

<210>  43
<211>  714
<212>  DNA
<213>  Renilla reniformis

<400>  43
atgagtaaac aaatattgaa gaacactgga ttgcaggaga tcatgtcgtt taaagtgatt      60

ctggaaggtg tagtaaacaa tcatgtgttc acaatggaag gttgtggaaa aggaaatatt     120

ttattcggaa accaactggt tcagattcgt gtcacaaaag gggctccgct tccatttgca     180

tttgatattc tctcaccagc tttccaatac ggcaaccgta cattcacgaa atacccggag     240

gatatatcag acttttttat acaatcattt ccagcgggat ttgtatacga agaacgttg      300

cgttacgaag atggtggact ggttgaaatc cgttcagata taaatttaat cgaggggatg     360

tttgtctaca gagtggaata taaaggtagt aacttcccga atgatggtcc agtgatgaag     420

aatacaatca caggattaca accttcgttc gaagttgtgt atatgaacga tggcgtcttg     480

gttggccaag tcattcttgt ttatagatta aactctggca aatttttattc gtgtcacatg     540

agaacactga tgaaatcaaa gggtgtagtg aaggattttc ccgaatacca tttcattcaa     600

catcgtttag agaagacgta tgtggaagac ggaggttttg ttgaggaaca cgagacggcc     660
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31

attgctcaac tgacatcgct ggggaaacca cttggatcct tacacgaatg ggtt   714

<210> 44
<211> 238
<212> PRT
<213> Renilla reniformis

<400> 44

Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met Ser
1   5   10   15

Phe Lys Val Ile Leu Glu Gly Val Val Asn Asn His Val Phe Thr Met
                20   25   30

Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val Gln
            35   40   45

Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile Leu
        50   55   60

Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu
65   70   75   80

Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr
                85   90   95

Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg Ser
            100   105   110

Asp Ile Asn Leu Ile Glu Gly Met Phe Val Tyr Arg Val Glu Tyr Lys
        115   120   125

Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Asn Thr Ile Thr
    130   135   140

Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu
145   150   155   160

Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe Tyr
                165   170   175

Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp
            180   185   190

Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr Val
        195   200   205

Glu Asp Gly Gly Phe Val Glu Glu His Glu Thr Ala Ile Ala Gln Leu
    210   215   220

Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225   230   235

<210> 45
<211> 714

32

<212> DNA
<213> Renilla reniformis

<400> 45
atgagtaaac aaatattgaa gaacactgga ttgcaggaga tcatgtcgtt taaagtgaat   60

ctggaaggtg tagtaaacaa tcatgtgttc acaatggaag gttgtggaaa aggaaatatt   120

ttattcggaa accaactggt tcagattcgt gtcacaaaag gggctccgct tccatttgca   180

tttgatattc tctcaccagc tttccaatac ggcaaccgta cattcacgaa atacccggag   240

gatatatcag acttttttat acaatcattt ccagcgggat ttgtatacga agaacgttg   300

cgtttcgaag atggtggact ggttgaaatc cgttcagata taaatttaat cgaggagatg   360

tttgtctaca gagtggaata taaaggtagt aacttcccga atgatggtcc agtgatgaag   420

aagacaatca caggattaca accttcgttc gaagttgtgt atatgaacga tggcgtcttg   480

gttggccaag tcattcttgt ttatagatta aactctggca aatttattc gtgtcacatg   540

agaacactga tgaaatcaaa gggtgtagtg aaggattttc ccgaataca tttcattcaa   600

catcgtttag agaagacgta tgtggaagac ggaggttttg ttgaggaaca cgagacggcc   660

attgctcaac tgacatcgct ggggaaacca cttggatcct tacacgaatg ggtt   714

<210>   46
<211>   238
<212>   PRT
<213>   Renilla reniformis

<400>   46

Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met Ser
1   5   10   15

Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr Met
            20   25   30

Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val Gln
        35   40   45

Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile Leu
    50   55   60

Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu
65   70   ,   75   80

Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr
                85   90   95

Glu Arg Thr Leu Arg Phe Glu Asp Gly Gly Leu Val Glu Ile Arg Ser
                100   105   110

Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr Arg Val Glu Tyr Lys

33

```
            115                      120                      125

Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile Thr
    130                 135                 140

Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu
145                 150                 155                 160

Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe Tyr
                165                 170                 175

Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp
                180                 185                 190

Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr Val
                195                 200                 205

Glu Asp Gly Gly Phe Val Glu Glu His Glu Thr Ala Ile Ala Gln Leu
    210                 215                 220

Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225                 230                 235

<210>  47
<211>  714
<212>  DNA
<213>  Renilla reniformis

<400>  47
atgagtaaac aaatattgaa gaacactgga ttgcaggaga tcatgtcgtt taaagtgaat        60

ctggaaggtg tagtaaacaa tcatgtgttc ccaatggaag gttgtggaaa aggaaatatt       120

ttattcggaa accaactggt tcagattcgt gtcacaaaag gggctccgct tccatttgca       180

tttgatattc tctcaccagc tttccaatac ggcaaccgta cattcacgaa atacccggag       240

gatatatcag acttttttat acaatcattt ccagcgggat ttgtatacga agaacgttg        300

cgtttcgaag atggtggact ggttgaaatc cgttcagata taaatttaat cgaggagatg       360

tttgtctaca gagtggaata taaaggtagt aacttcccga atgatggtcc agtgatgaag       420

aagacaatca caggattaca accttcgttc gaagttgtgt atatgaacga tggcgtcttg       480

gttggccaag tcattcttgt ttatagatta aactctggca aattttattc gtgtcacatg       540

agaacactga tgaaatcaaa gggtgtagtg aaggattttc ccgaatacca tttcattcaa       600

catcgtttag agaagacgta tgtggaagac ggaggttttg ttgaggaaca cgagacggcc       660

attgctcaac tgacatcgct ggggaaacca cttggatcct tacacgaatg ggtt            714

<210>  48
<211>  238
<212>  PRT
<213>  Renilla reniformis
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<400> 48

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Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met Ser
1               5                   10                  15

Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Pro Met
            20                  25                  30

Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val Gln
            35                  40                  45

Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile Leu
        50                  55                  60

Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu
65                  70                  75                  80

Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr
                85                  90                  95

Glu Arg Thr Leu Arg Phe Glu Asp Gly Gly Leu Val Glu Ile Arg Ser
            100                 105                 110

Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr Arg Val Glu Tyr Lys
            115                 120                 125

Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile Thr
    130                 135                 140

Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu
145                 150                 155                 160

Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe Tyr
                165                 170                 175

Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp
            180                 185                 190

Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr Val
            195                 200                 205

Glu Asp Gly Gly Phe Val Glu Glu His Glu Thr Ala Ile Ala Gln Leu
    210                 215                 220

Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225                 230                 235
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<210> 49
<211> 714
<212> DNA
<213> Renilla reniformis

<400> 49
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atgagtaaac aaatattgaa gaacactgga ttgcaggaga tcatgtcgtt taaagtgaat    60

ctggaaggtg tagtaaacaa tcatgtgttc acaatggaag gttgtggaaa aggaaatatt   120
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ttattcggaa accaactggt tcagattcgt gtcacaaaag gggctccgct tccatttgca      180

tttgatattc tctcaccagc tttccaatac ggcaaccgta cattcacgaa atacccggag      240

gatatatcag actttttat acaatcattt ccagcgggat ttgtatacga agaacgttg        300

cgttacgaag atggtggact ggttgaaatc cgttcagata taaatttaat cgaggggatg      360

tttgtctaca gagtggaata taaaggtagt aacttcccga atgatggtcc agtgatgaag      420

aagacaatca caggattaca accttcgttc gaagttgtgt atatgaacga tggcgtcttg      480

gttggccaag tcattcttgt ttatagatta aactctggca aatttattc gtgtcacatg       540

agaacactga tgaaatcaaa gggtgtagtg aaggattttc ccgaatacca tttcattcaa      600

catcgtttag agaagacgta tgtggaagac ggaggttttg ttgaggaaca cgagacggcc      660

attgctcaac tgacatcgct ggggaaacca cttggatcct tacacgaatg ggtt           714
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<210> 50
<211> 238
<212> PRT
<213> Renilla reniformis

<400> 50

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Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met Ser
1               5                   10                  15

Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr Met
            20                  25                  30

Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val Gln
        35                  40                  45

Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile Leu
    50                  55                  60

Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu
65                  70                  75                  80

Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr
                85                  90                  95

Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg Ser
            100                 105                 110

Asp Ile Asn Leu Ile Glu Gly Met Phe Val Tyr Arg Val Glu Tyr Lys
            115                 120                 125

Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile Thr
        130                 135                 140

Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu
145                 150                 155                 160
```

36

```
Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe Tyr
            165                 170                 175

Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp
            180                 185                 190

Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr Val
        195                 200                 205

Glu Asp Gly Gly Phe Val Glu Glu His Glu Thr Ala Ile Ala Gln Leu
    210                 215                 220

Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225                 230                 235
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<210>  51
<211>  714
<212>  DNA
<213>  Renilla reniformis

<400>  51
atgagtaaac aaatattgaa gaacactgga ttgcaggaga tcatgtcgtt taaagtgaat     60

ctggaaggtg tagtaaacaa tcatgtgttc acaatggaag gttgtggaaa aggaaatatt    120

ttatccggaa accaactggt tcagattcgt gtcacaaaag gggctccgct tccatttgca    180

tttgatattc tctcaccagc tttccaatac ggcaaccgta cattcacgaa atacccggag    240

gatatatcag acttttttat acaatcattt ccagcgggat ttgtatacga agaacgttg    300

cgtttcgaag atggtggact ggttgaaatc cgttcagata taaatttaat cgaggagatg    360

tttgagtaca gagtggaata taaaggtagt aacttcccga atgatggtcc agtgatgaag    420

aagacaatca caggattaca accttcgttc gaagttgtgt atatgaacga tggcgtcttg    480

gttggccaag tcattcttgt ttatagatta aactctggca aattttattc gtgtcacatg    540

agaacactga tgaaatcaaa gggtgtagtg aaggattttc ccgaatacca tttcattcaa    600

catcgtttag agaagacgta tgtggaagac ggaggttttg tagaggaaca cgagacggcc    660

attgctcaac tgacatcgct ggggaaacca cttggatcct tacacgaatg ggtt          714
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<210>  52
<211>  238
<212>  PRT
<213>  Renilla reniformis

<400>  52

Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met Ser
1               5                   10                  15

Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr Met
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Glu Gly Cys Gly Lys Gly Asn Ile Leu Ser Gly Asn Gln Leu Val Gln
        35   40   45

Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile Leu
        50   55   60

Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu
65   70   75   80

Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr
                85   90   95

Glu Arg Thr Leu Arg Phe Glu Asp Gly Gly Leu Val Glu Ile Arg Ser
                100   105   110

Asp Ile Asn Leu Ile Glu Glu Met Phe Glu Tyr Arg Val Glu Tyr Lys
        115   120   125

Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile Thr
        130   135   140

Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu
145   150   155   160

Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe Tyr
                165   170   175

Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp
                180   185   190

Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr Val
        195   200   205

Glu Asp Gly Gly Phe Val Glu Glu His Glu Thr Ala Ile Ala Gln Leu
        210   215   220

Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225   230   235

<210>   53
<211>   714
<212>   DNA
<213>   Renilla reniformis

<400>   53
atgagtaaac aaatattgaa gaacactgga ttgcaggaga tcatgtcgtt taaagtgaat   60

ctggaaggtg tagtaaacaa tcatgtgttc acaatggaag gttgtggaaa aggaaatatt   120

ttatccggaa accaactggt tcagattcgt gtcacaaaag gggctccgct tccatttgca   180

tttgatattc tctcaccagc tttccaatac ggcaaccgta cattcacgaa atacccggag   240

gatatatcag acttttttat acaatcattt ccagcgggat ttgtatacga aagaacgttg   300

38

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cgtttcgaag atggtggact ggttgaaatc cgttcagata taaatttaat cgaggagatg     360

tttgagtaca gagtggaata taaaggtagt aacttcccga atgatggtcc agtgatgaag     420

aagacaatca caggattaca accttcgttc gaagttgtgt atatgaacga tggcgtcttg     480

gttggccaag tcattcttgt ttatagatta aactctggca aattttattc gtgtcacatg     540

agaacactga tgaaatcaaa gggtgtagtg aaggattttc ccgaatacca tttcattcaa     600

catcgtttag agaagacgta tgtggaagac ggaggttttg ttgaggaaca cgagacggcc     660

attgctcaac tgacatcgct ggggaaacca cttggatcct tacacgaatg ggtt           714
```

<210>   54
<211>   238
<212>   PRT
<213>   Renilla reniformis

<400>   54

```
Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met Ser
1               5                   10                  15

Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr Met
            20                  25                  30

Glu Gly Cys Gly Lys Gly Asn Ile Leu Ser Gly Asn Gln Leu Val Gln
        35                  40                  45

Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile Leu
    50                  55                  60

Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu
65                  70                  75                  80

Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr
                85                  90                  95

Glu Arg Thr Leu Arg Phe Glu Asp Gly Gly Leu Val Glu Ile Arg Ser
            100                 105                 110

Asp Ile Asn Leu Ile Glu Glu Met Phe Glu Tyr Arg Val Glu Tyr Lys
        115                 120                 125

Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile Thr
    130                 135                 140

Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu
145                 150                 155                 160

Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe Tyr
                165                 170                 175

Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp
                180                 185                 190
```

Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr Val
    195   200   205

Glu Asp Gly Gly Phe Val Glu Glu His Glu Thr Ala Ile Ala Gln Leu
    210   215   220

Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225   230   235

<210>   55
<211>   714
<212>   DNA
<213>   Renilla reniformis

<400>   55
atgagtaaac aaatattgaa gaacactgga ttgcaggaga tcatgtcgtt taaagtgatt   60

ctggaaggtg tagtaaacaa tcatgtgttc acaatggaag gttgtggaaa aggaaatatt   120

ttattcggaa accaactggt tcagattcgt gtcacaaaag gggctccgct tccatttgca   180

tttgatattc tctcaccagc tttccaatac ggcaaccgta cattcacgaa atacccggag   240

gatatatcag actttttat acaatcattt ccagcgggat ttgtatacga agaacgttg   300

cgtttcgaag atggtggact ggttgaaatc cgttcagata taaatttaat cgagggatg   360

tttgtctaca gagtggaata taaaggtagt aacttcccga atgatggtcc agtgatgaag   420

aatacaatca caggattaca accttcgttc gaagttgtgt atatgaacga tggcgtcttg   480

gttggccaag tcattcttgt ttatagatta aactctggca aatttttattc gtgtcacatg   540

agaacactga tgaaatcaaa gggtgtagtg aaggattttc ccgaatacca tttcattcaa   600

catcgtttag agaaggcgta tgtggaagac ggaggtattg ttgaggaaca cgagacggcc   660

attgctcaac tgacatcgct ggggaaacca cttggatcct tacacgaatg ggtt   714

<210>   56
<211>   238
<212>   PRT
<213>   Renilla reniformis

<400>   56

Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met Ser
1   5   10   15

Phe Lys Val Ile Leu Glu Gly Val Val Asn Asn His Val Phe Thr Met
            20   25   30

Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val Gln
        35   40   45

Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile Leu
    50   55   60

40

```
Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu
65                  70                  75                  80

Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr
                85                  90                  95

Glu Arg Thr Leu Arg Phe Glu Asp Gly Gly Leu Val Glu Ile Arg Ser
            100                 105                 110

Asp Ile Asn Leu Ile Glu Gly Met Phe Val Tyr Arg Val Glu Tyr Lys
            115                 120                 125

Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Asn Thr Ile Thr
    130                 135                 140

Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu
145                 150                 155                 160

Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe Tyr
                165                 170                 175

Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp
            180                 185                 190

Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Ala Tyr Val
            195                 200                 205

Glu Asp Gly Gly Ile Val Glu Glu His Glu Thr Ala Ile Ala Gln Leu
    210                 215                 220

Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225                 230                 235

<210>   57
<211>   714
<212>   DNA
<213>   Renilla reniformis

<400>   57
atgagtaaac aaatattgaa gaacactgga ttgcaggaga tcatgtcgtt taaagtgaat        60

ctggaaggtg tagtaaacaa tcatgtgttc acaatggaag gttgtggaaa aggaaatatt        120

ttattcggaa accaactggt tcagattcgt gtcacaaaag gggctccgct tccatttgca        180

tttgatattc tctcaccagc tttccaatac ggcaaccgta cattcacgaa atacccggag        240

gatatatcag actttttttat acaatcattt ccagcgggat ttgtatacga agaacgttg        300

cgttacgaag atggtggact ggctgaaatc cgttcagata taaatttaat cgaggggatg        360

tttgtctaca gagtggaata taaaggtagt aacttcccga atgatggtcc agtgatgaag        420

aatacaatca caggattaca accttcgttc gaagttgtgt atatgaacga tggcgtcttg        480

gttggccaag tcattcttgt ttatagatta aactctggca aatttttattc gtgtcacatg        540
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agaacactga tgaaatcaaa gggtgtagtg aaggattttc ccgaatacca tttcattcaa   600

catcgtttag agaagacgta tgtggaagac ggaggttttg ttgaggaaca cgagacggcc   660

attgctcaac tgacatcgct ggggaaacca cttggatcct tacacgaatg ggtt   714

<210>   58
<211>   238
<212>   PRT
<213>   Renilla reniformis

<400>   58

Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met Ser
1   5   10   15

Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr Met
            20   25   30

Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val Gln
        35   40   45

Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile Leu
    50   55   60

Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu
65   70   75   80

Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr
            85   90   95

Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Ala Glu Ile Arg Ser
            100   105   110

Asp Ile Asn Leu Ile Glu Gly Met Phe Val Tyr Arg Val Glu Tyr Lys
        115   120   125

Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Asn Thr Ile Thr
    130   135   140

Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu
145   150   155   160

Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe Tyr
            165   170   175

Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp
            180   185   190

Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr Val
        195   200   205

Glu Asp Gly Gly Phe Val Glu Glu His Glu Thr Ala Ile Ala Gln Leu
    210   215   220

Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val

42

<210> 59
<211> 714
<212> DNA
<213> Renilla reniformis

<400> 59

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ctggaaggtg tagtaaacaa tcatgtgttc acaatggaag gttgtggaaa aggaaatatt     120

ttattcggaa accaactggt tcagattcgt gtcacaaaag gggctccgct tccatttgca     180

tttgatattc tctcaccagc tttccaatac ggcaaccgta cattcacgaa atacccggag     240

gatatatcag acttttttat acaatcattt ccagcgggat ttgtatacga agaacgttg      300

cgttacgaag atggtggact ggttgaaatc cgttcagata taaatttaat cgaggggatg     360

tttgtctaca gagtggaata taaaggtagt aacttcccga atgatggtcc agtgatgaag     420

aatacaatca caggattaca accttcgttc gaagttgtgt atatgaacga tggcgtcttg     480

gttggccaag tcattcttgt ttatagatta aactgtggca aatttttattc gtgtcacatg     540

agaacactga tgaaatcaaa gggtgtagtg aaggatttc ccgaatacca tttcattcaa      600

catcgtttag agaagacgta tgtggaagac ggaggttttg ttgaggaaca cgagacggcc     660

attgctcaac tgacatcgct ggggaaacca cttggatcct tacacgaatg ggtt           714
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<210> 60
<211> 238
<212> PRT
<213> Renilla reniformis

<400> 60

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Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Val Ser
1               5                   10                  15

Phe Lys Val Ile Leu Glu Gly Val Val Asn Asn His Val Phe Thr Met
            20                  25                  30

Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val Gln
            35                  40                  45

Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile Leu
    50                  55                  60

Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu
65                  70                  75                  80

Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr
                85                  90                  95
```

```
Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg Ser
            100                 105                 110

Asp Ile Asn Leu Ile Glu Gly Met Phe Val Tyr Arg Val Glu Tyr Lys
            115                 120                 125

Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Asn Thr Ile Thr
    130                 135                 140

Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu
145                 150                 155                 160

Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Cys Gly Lys Phe Tyr
                165                 170                 175

Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp
            180                 185                 190

Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr Val
            195                 200                 205

Glu Asp Gly Gly Phe Val Glu Glu His Glu Thr Ala Ile Ala Gln Leu
    210                 215                 220

Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225                 230                 235

<210>   61
<211>   714
<212>   DNA
<213>   Renilla reniformis

<400>   61
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ctggaaggtg tagtaaacaa tcatgtgttc acaatggaag gttgtggaaa aggaaatatt     120

ttattcggaa accaactggt tcagattcgt gtcacaaaag gggctccgct tccatttgca     180

tttgatattc tctcaccagc cttccaatac ggcaaccgta cattcacgaa atacccggag     240

gatatatcag acttttttat acaatcattt ccagcgggat ttgtatacga agagcgttg     300

cgttacgaag atggtggact ggttgaaatc cgttcagata taaatttaat cgaggagatg     360

tttgtctaca gagtggaata taaaggtagt aacttcccga atgatggtcc agtgatgaag     420

aagacaatca caggattaca accttcgttc gaagttgtgt atatgaacga tggcgtcttg     480

gttggccaag tcattcttgt ttatagatta aactctggca aatttattc gtgtcacatg     540

agaacactga tgaaatcaaa gggtgtagtg aaggattttc ccgaatacca tttcattcaa     600

catcgtttag agaagacgta tgtggaagac ggaggttttg ttgaggaaca cgagacggcc     660

attgctcaac tgacatcgct ggggaaacca cttggatcct tacacgaatg ggtt          714
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44

<210> 62
<211> 238
<212> PRT
<213> Renilla reniformis

<400> 62

Met Ser Lys Gln Ile Leu Lys Asn Thr Gly Leu Gln Glu Ile Met Ser
1   5   10   15

Phe Lys Val Asn Leu Glu Gly Val Val Asn Asn His Val Phe Thr Met
            20   25   30

Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val Gln
        35   40   45

Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile Leu
    50   55   60

Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Glu
65   70   75   80

Asp Ile Ser Asp Phe Phe Ile Gln Ser Phe Pro Ala Gly Phe Val Tyr
                85   90   95

Glu Arg Ala Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg Ser
            100   105   110

Asp Ile Asn Leu Ile Glu Glu Met Phe Val Tyr Arg Val Glu Tyr Lys
        115   120   125

Gly Ser Asn Phe Pro Asn Asp Gly Pro Val Met Lys Lys Thr Ile Thr
    130   135   140

Gly Leu Gln Pro Ser Phe Glu Val Val Tyr Met Asn Asp Gly Val Leu
145   150   155   160

Val Gly Gln Val Ile Leu Val Tyr Arg Leu Asn Ser Gly Lys Phe Tyr
                165   170   175

Ser Cys His Met Arg Thr Leu Met Lys Ser Lys Gly Val Val Lys Asp
            180   185   190

Phe Pro Glu Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr Val
        195   200   205

Glu Asp Gly Gly Phe Val Glu Glu His Glu Thr Ala Ile Ala Gln Leu
    210   215   220

Thr Ser Leu Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
225   230   235

<210> 63
<211> 36
<212> DNA
<213> Artificial

<220>
<223> PCR primer

<400> 63
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<210> 64
<211> 37
<212> DNA
<213> Artificial

<220>
<223> PCR Primer

<400> 64
attattatta agcttctatt acacccactc gtgcagg   37

<210> 65
<211> 17
<212> DNA
<213> Artificial

<220>
<223> ERFP1 Sequencing primer

<400> 65
cttcgacatc ctgagcc   17

<210> 66
<211> 19
<212> DNA
<213> Artificial

<220>
<223> ERFP2 sequencing primer

<400> 66
cgcatgtggc agctgtaga   19

<210> 67
<211> 33
<212> DNA
<213> Artificial

<220>
<223> Oligonucleotide Primer for Introduction of hrGFP Mutations into
      Mammalian Expression Vectors

<400> 67
aagggcaaca tcctgttagg caaccagctg gtg   33

<210> 68
<211> 33
<212> DNA
<213> Artificial

<220>

46

<223> Oligonucleotide Primer for Introduction of hrGFP Mutations into
       Mammalian Expression Vectors

<400> 68
acatcaacct gatcgagggg atgttcgtgt acc   33

<210> 69
<211> 32
<212> DNA
<213> Renilla reniformis

<400> 69
aggacggcgg cttcgtagag cagcacgaga cc   32

<210> 70
<211> 32
<212> DNA
<213> Artificial

<220>
<223> Oligonucleotide Primer for Introduction of hrGFP Mutations into
       Mammalian Expression Vectors

<400> 70
tgtacgagcg caccatgcgc tacgaggacg gc   32

<210> 71
<211> 33
<212> DNA
<213> Artificial

<220>
<223> Oligonucleotide Primer for Introduction of hrGFP Mutations into
       Mammalian Expression Vectors

<400> 71
aagggcaaca tcctgtccgg caaccagctg gtg   33

<210> 72
<211> 32
<212> DNA
<213> Artificial

<220>
<223> Oligonucleotide Primer for Introduction of hrGFP Mutations into
       Mammalian Expression Vectors

<400> 72
tgtacgagcg caccctgtgc tacgaggacg gc   32

<210> 73
<211> 33
<212> DNA
<213> Artificial

<220>
<223> Oligonucleotide Primer for Introduction of hrGFP Mutations into

47

Mammalian Expression Vectors

<400> 73
atgttcgtgt accacgtgga gtacaagggc cgc   33

<210> 74
<211> 32
<212> DNA
<213> Artificial

<220>
<223> Oligonucleotide Primer for Introduction of hrGFP Mutations into
      Mammalian Expression Vectors

<400> 74
tgaccagcct gggcaatccc ctgggcagcc tg   32

<210> 75
<211> 33
<212> DNA
<213> Artificial

<220>
<223> Oligonucleotide Primer for Introduction of hrGFP Mutations into
      Mammalian Expression Vectors

<400> 75
atgagcttca aggtgatcct ggagggcgtg gtg   33

<210> 76
<211> 32
<212> DNA
<213> Artificial

<220>
<223> Oligonucleotide Primer for Introduction of hrGFP Mutations into
      Mammalian Expression Vectors

<400> 76
acggccccgt gatgaagaat accatcaccg gc   32

<210> 77
<211> 31
<212> DNA
<213> Artificial

<220>
<223> Oligonucleotide Primer for Introduction of hrGFP Mutations into
      Mammalian Expression Vectors

<400> 77
tacgagcgca ccctgcgctt cgaggacggc g   31

<210> 78
<211> 32
<212> DNA
<213> Artificial

<220>
<223> Oligonucleotide Primer for Introduction of hrGFP Mutations into
       Mammalian Expression Vectors

<400> 78
acaaccacgt gttccccatg gagggctgcg gc   32

<210> 79
<211> 30
<212> DNA
<213> Renilla reniformis

<400> 79
ggcctgcagg agatcgtgag cttcaaggtg   30

<210> 80
<211> 30
<212> DNA
<213> Artificial

<220>
<223> Oligonucleotide Primer for Introduction of hrGFP Mutations into
       Mammalian Expression Vectors

<400> 80
taccgcctga actgcggcaa gttctacagc   30